

REMARKS

Applicants wish to thank Examiner Chat Do for the Examiner's Interview conducted over the phone on December 13, 2010 with Applicants' representative Lawrence Cho. During the interview, the rejection to Claims 1, 3, 5-16, 21, and 23-24 under 35 U.S.C. §101 was discussed. Applicants' representative pointed out that the term "target device" is used in the specification to describe programmable devices such as, for example, a field programmable gate arrays (FPGAs) as can be seen in paragraphs [0018], [0019], and [0021]. An agreement was reached that in view of this explanation, Claims 1, 3, 5-16, 21, and 23-24 are directed to statutory subject matter and comply with 35 U.S.C. §101.

During the interview, the rejection to Claim 1 under 35 U.S.C. §103(a) was also discussed. Applicant's representative pointed out that Figure 11B of U.S. Patent No. 6,711,602 ("Bhandal") illustrates operations performed by a digital signal processor (DSP) 44 where the dimension of multiplication supported by the DSP 44 supports multiplying all of the bits of the numbers multiplied in Figure 11B. In contrast, a largest dimension of multiplication supported by the DSP as claimed is under that which supports multiplying a first and second number. Examiner Do recommended further distinguishing Applicants' invention from Bhandal and U.S. Patent No. 7,046,723 ("Schier") by including language that the "stored value" recited in independent Claim 1 is retrieved from a memory that resides off of a DSP as recited in Claims 25 and 26.

Applicants respectfully request the Examiner's reconsideration of the present application as currently amended. Claims 1, 3, and 5-26 in the present application are pending.

Claims 1, 11, 17, 21, and 22 have been amended. Claims 7-10, 25 and 26 have been canceled. Support for amended claims 1, 11, 17, 21, and 22 may be found at paragraphs [0019]-[0020], [0028], [0031], and [0037]-[0038] in the specification, and Figures 1-4 of the drawings. No new matter has been added.

35 U.S.C. §101

Claims 1, 3, 5-6, 11-16, 21, and 23-24 are rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. As stated above, during the telephone interview of December 13, 2010 with the undersigned representative, the Examiner agreed to withdraw this rejection.

35 U.S.C. §103(a)

Claims 1, 3, 5-6, and 11-24 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bhandal in view of Schier.

Claim 1 recites

generating a product by multiplying a first plurality of bits associated with the first number and a first plurality of bits associated with the second number using a single digital signal processor (DSP) where a largest dimension of multiplication supported by the DSP is under that which supports multiplying the first and second numbers.

(Emphasis added.)

In contrast, as stated above, Bhandal discloses a method of multiplying a first number with a second number using a digital signal processor (DSP) 44 where the dimension of multiplication supported by the DSP supports multiplying all of the bits of the first and second number (see Bhandal column 4, line 53 through column 5, line 15, and Figures 1, 2, and 5). The

largest dimension of multiplication supported by the DSP disclosed in Bhandal is not “under that which supports multiplying the first and second numbers,” as claimed.

Schier fails to remedy the failures of Bhandal with respect to Claim 1.

Nevertheless, in order to facilitate allowance of this application, Claim 1 has been further amended to include the limitation “retrieving a stored value ... from a memory ... wherein the memory resides outside of the DSP” as suggested by the Examiner in the Examiner’s Interview conducted on December 13, 2010.

Accordingly, Bhandal and Schier do not render independent Claim 1 unpatentable under 35 U.S.C. §103(a). Independent Claims 11, 17, 21, and 22 have also been amended to recite the language suggested by the Examiner, and are patentable over the cited references for similar reasons that Claim 1 is patentable. Dependent Claims 3, 5-6, 12-16, 18-20, 23-24 are patentable at least by virtue of their dependency.

In view of the remarks set forth herein, it is respectfully submitted that the applicable rejections have been overcome. Accordingly, it is respectfully submitted that claims 1, 3, and 5-6, 11-24 should be found to be in condition for allowance.

The Examiner is invited to telephone Applicants’ attorney (217-377-2500) to facilitate prosecution of this application.

If any additional fee is required, please charge Deposit Account No. 50-1624.

Respectfully submitted,

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